

1. Product Description

StenSeal® 2EP 231 is a two-component, cold-applied, chemically cured epoxy-based, elastomeric, high bond strength joint filler material suitable for heavy traffic conditions. Designed for sloped, vertical and overhead joints, it is formulated not to sag during application. It is resistant to organic and inorganic acids and alkalis, oils, fuels, antifreeze, and many chemicals.

2. Uses

StenSeal® 2EP 231 is specifically manufactured for use in joints of concrete pavements under heavy load and traffic. With its low viscosity structure, it can be used even in narrow joints. **StenSeal® 2EP 231** is suitable for use in roads, stadiums, industrial facilities, port areas, dam platforms, warehouses, stores, cargo areas and similar interior and exterior concrete areas.

3. Application

3.1. Surface Preparation

Joint surfaces must be clean and dry. Oil, grease, bitumen, and old sealant residues must be completely removed. Loose materials on the joint walls must be removed; broken joint walls must be repaired.

StenSeal® 2EP 231 is affected by water before it sets, like all other epoxy-based materials. Therefore, the joints must be dry and the sealant must not contact water until chemical curing occurs.

3.2. Primer

StenSeal® 2EP 231 can be used in new concrete joints without primer. However, primer application helps minimize the negative effects of possible contamination, concrete moisture, and loose material in all cases. For this reason, **StenAst® 2EP** is recommended for use on concrete, plastic, glass, wooden, metal and all types of surfaces.

3.3. Backer Material

A backer rod that preferably does not adhere to the sealant must be placed in the joint to achieve the sealant depth determined by the joint width. Closed-cell polyethylene foam rods (**StenBacker**) are suitable for this purpose. The diameter of the rod must be 10-25% larger than the joint width, and the rod must be placed tightly in the joint.

Rods must not be damaged during placement. In wide joints, semi-rigid materials, such as polystyrene foam, can be used instead of a backer rod. In such cases, a polyethylene tape must be placed over the backing material to prevent adhesion to the sealant.

3.4. Mixing

StenSeal® 2EP 231 consists of two components called A and B, packaged in the required amounts for the optimal mixture. The A component container is opened and first mixed for 1-2 minutes on its own, then the entire B component is poured on top of the A component and mixed for 3 minutes with a low-speed drill (100-500 rpm) and an appropriate paddle. Longer mixing times are required to obtain a homogeneous mixture in manual mixing.

Cold-Applied, Epoxy-based, Non-Sagging Type, Joint Filler and Crack Repair Material

Highlights

- Two-component, epoxy-based
- Ideal for vertical, sloped and overhead applications
- Cold-applied and very easy to apply
- Chemically cured
- Very high bond strength to concrete
- Has high abrasion resistance
- Suitable for use in all joints and concrete cracks where high load-carrying capacity and limited elasticity are required
- Resistant to dilute acids and alkalis, solvents, and many chemicals



During mixing, move the mixer through all parts of the container while avoiding air entrainment.

3.5. Application

The amount of sealant that can be used within the pot life must be determined according to the application area and the capacity of the application equipment. Mixed material must be used within the pot life. Under no circumstances should any solvent be used to thin the paste that has exceeded its pot life.

Material that has exceeded its pot life must not be used. The prepared mixture is loaded into a piston-type sealant gun. Fit a nozzle narrow enough to enter the joint to the applicator.

During application, advance the nozzle tip by sliding it over the backing material in the joint. This ensures that no gap remains beneath the sealant and that a sufficient amount of sealant is applied. After application, the sealant surface must be smoothed with a spatula.

Application can also be carried out directly with a spatula when necessary. It is recommended to tape both sides of the joint before application, especially where decorative appearance is important. In this way, material that gets onto the area outside the joint during application is removed by pulling off the tape after application.

3.6. Restrictions

It is not recommended for joints narrower than 6 mm. It must not be used on dirty, oily, dusty and wet joints. Cleaning such joints before application is important for ensuring good adhesion.

Despite its high load-bearing resistance, studded tires, ice chains, and spiked heels may cause damage. During application, ambient temperature must not exceed 35 °C or fall below 5 °C. If application under conditions outside this range is necessary, contact **Stenkim®**.

4. Cleaning

Equipment and any other tools contaminated with sealant must be cleaned before the sealant cures. For that purpose, tools first wiped with a cloth or rag must be cleaned with **StenSolver CL** or aromatic solvents such as toluene and xylene.

5. Safety

Applicators and supervisors must read the Material Safety Data Sheet (SDS) carefully and follow the instructions provided. Emptied packages must be handled in compliance with relevant regulations and laws. The application must be carried out by skilled workers under supervision of experts and the applicators must use all kinds of protective equipment required for the worksite and the task such as goggles, mask and gloves.

6. Storage

The material must be kept in dry indoor storage. Recommended storage temperature is 10-25 °C. Under these conditions, the material will retain its properties in unopened containers for 12 months from the production date.

Low temperatures may cause crystallization of the product; in this case, the product can be used after heating and homogenizing at +20 °C. The product must be stirred thoroughly before use after prolonged storage.

7. Disclaimer

This document is provided for general information and reflects **Stenkim®**'s laboratory data and field experience at the time of publication. **Stenkim®** reserves the right to revise this information at any time without notice.



Stenkim® warrants that its products conform to the stated specifications on delivery. The buyer is responsible for determining the product's suitability for the intended application and for all conditions of transport, storage, handling, and use. **Stenkim®** accepts no liability for results obtained under conditions outside its control. **Stenkim®**'s liability under this warranty is limited to replacement of non-conforming product and excludes any consequential or indirect damages.

8. Technical Data

Property	Method	Result
Base Polymer		Epoxy
Solid Content		100
Color		Catalog
Density		1.6 ± 0.05 g/cm ³
Elongation at Break	ASTM D 412 Die B	> 60%
Hardness (Shore)	EN ISO 48-4	D40-60
Compressive Strength Index	ASTM D 695	730 MPa
Tensile Strength	ASTM D 412	6.2 MPa
Tensile Modulus @0.05 strain	ASTM D 412	24 MPa
Pot Life @20 °C		30 minutes
Tack-free Time @20 °C	EN 14188-2	1 hour
Time to open to heavy traffic @20 °C		1 day
Cure Time for Chemical Resistance @20 °C		4 days
Shelf Life		1 year
Packaging		10 kg can sets

Stenkim® reserves the right to make changes to the values in this table at any time.

